DEPARTMENT OF THE ARMY
WASHINGTON AQUEDUCT
U.S. ARMY CORPS OF ENGINEERS, BALTIMORE DISTRICT
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WASHINGTON, D.C. 20016-2514

March 8, 2016

Office of the General Manager

Mr. Andrew Seligman (3WP42)
NPDES Enforcement Branch
Water Protection Division
U.S. Environmental Protection Agency
1050 Arch Street
Philadelphia, PA 19103-2029

RE: NPDES Permit DC 0000019 Washington Aqueduct, Outfall 009 discharge, February 29, 2016

Dear Mr. Seligman:

On February 29, 2016, as part of the procedure to return Washington Aqueduct's Third High (finished water) reservoir to service following a thorough cleaning and inspection, dechlorinated drinking water was discharged through outfall 009 as designated in NPDES Permit DC 0000019.

The sediment (precipitated lime) that had collected in the reservoir through several years of use was sent to a vacuum truck on site at Fort Reno, and that sediment was disposed of by our contractor. None of that sediment was introduced to outfall 009. Wash water from the power washing of the interior of the reservoir was discharged to the sanitary sewer.

The reservoir work was accepted on February 22, 2016, by Washington Aqueduct managers. We have enclosed a photograph of the interior of the reservoir after the cleaning. You will be able to see that there is no residue on the floor or attached to the structure itself. Based on this inspection, the return to service plan was initiated.

To return the reservoir to service it remains isolated from the distribution system and is filled with finished water produced at the Dalecarlia Water Treatment Plant. During the filling, additional chlorine is added (approximately 11 milligrams per liter concentration). After standing for two days in this superchlorinated state to disinfect the interior surfaces of the reservoir, the next step is to dechlorinate the water as it is drained via outfall 009. The rate of discharge is approximately 6,000 gallons per minute. The chlorine residual is continually monitored during discharge with the requirement being no detectable chlorine.

The permit conditions for such a discharge limit the discharge to 60 milligrams per liter of total suspended solids and 8 milligrams per liter of total iron and aluminum. The conditions of the permit for outfall 009 require two grab samples. One taken upon initiation of the discharge from the finished water reservoir and one at the midpoint of the discharge.

The specified outfall is at a manhole at the intersection east of Davenport Road and Belt Road. That manhole (M-3190) could not be located. We suspect that over the years it has become buried. The

compliance sample was taken from manhole M-3189. The enclosed DC Water sewer plant (pdf file named "WA Connection to Sewer") shows the location of the manhole used.

The initial sample collected on February 29, 2016, at 1:12 pm was taken to the Washington Aqueduct water quality laboratory for analysis of total suspended solids, iron and aluminum. A chorine measurement was taken in the field. It showed no residual chlorine present. The pH was 7.46 units.

The laboratory results of the initial sample were available on March 3, 2016. The total suspended solids were 97 milligrams per liter. Total iron was 10.7 milligrams per liter, dissolved iron was non-detect, and aluminum was 4.01 milligrams per liter.

In addition to the initial sample four more samples were taken during the period of the discharge (even though the permit requires only one additional sample for total suspended solids, iron and aluminum at the midpoint of the discharge). The sample taken at noon on March 2, 2016 (i.e., the midpoint of the discharge) had 2 milligrams per liter total suspended solids. The other three samples had 0 milligrams per liter total suspended solids.

Since Washington Aqueduct was discharging clean, potable (but intentionally dechlorinated) water from the clean reservoir, it is a surprise that the initial sample recorded total suspended solids and total iron outside the permit limits. We have no reason to believe that source of total suspended solids or iron was the reservoir. The total suspended solids and iron detected in the sample most likely came from scouring of the section of the cast iron storm drain pipe between the reservoir outlet and the sampling manhole during the initial release of water and was not indicative of the water being discharged from the reservoir. For visual comparison purposes, a sample of the water collected during the initial collection and a sample from the midpoint collection were placed in graduated cylinders, labeled, and photographed side by side. That photograph is enclosed with this letter.

When we because aware of the total suspended solids concentration from the initial sample on March 3, 2016, we began gathering additional facts to be able to document this event and provide it to your office. I left a voice mail for Mr. David McGuigan on March 4 after speaking to Ms. Wendy Gray to get his direct telephone number. In that message I provided a brief outline of the facts contained in this letter.

This letter serves to formally notify you of the circumstances that resulted in exceeding the total suspended solids and total iron maximum daily limits for the sample collected during the initial discharge of the clean water to outfall 009.

Please let us know what would be a convenient time for us to discuss this with you or others in Region 3.

Sincerely,

Thomas P. Jacobus
General Manager

Enclosures